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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/316,804	05/21/1999	JOHN RAITHEL HIND	CR9-99-045	8334

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IBM CORPORATION
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EXAMINER

BAUM, RONALD

ART UNIT	PAPER NUMBER
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2136

DATE MAILED: 08/18/2004

15

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/316,804

Applicant(s)

HIND ET AL.

Examiner

Ronald Baum

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 May 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-4, 6, 8-10, 12, 14-16 and 18-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-4, 6, 8-10, 12, 14-16, 18-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- 1) ☐ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

1. This action is in reply to applicant's correspondence of 24 May 2004.
2. Claims 2-4, 6, 8-10, 12, 14-16, 18-22 are pending for examination.
3. Claims 2-4, 6, 8-10, 12, 14-16, 18-22 are rejected.
4. In view of the appeal brief filed on 5/24/2004, PROSECUTION IS HEREBY REOPENED. *New grounds of rejection are* set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

- (1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,
- (2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

5. As per the issue of common ownership "at the time the invention was made, subject an obligation... [see paper 6, paragraph VI.]", the examiner directs the applicant's attention to the following section in the MPEP;

706.02(I)2 II

II. EVIDENCE REQUIRED TO ESTABLISH COMMON OWNERSHIP

It is important to recognize just what constitutes sufficient evidence to establish common ownership at the time the invention was made. The common ownership must be shown to exist at the time the later invention was made. A statement of present common ownership is not sufficient. In re Onda, 229 USPQ 235 (Comm'r Pat. 1985).

The following statement is sufficient evidence to establish common ownership of, or an obligation for assignment to, the same person(s) or organizations(s):

Applications and references (whether patents, patent applications, patent application publications, etc.) will be considered by the examiner to be owned by, or subject to an

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obligation of assignment to the same person, at the time the invention was made, if the applicant(s) or an attorney or agent of record makes a statement to the effect that the application and the reference were, at the time the invention was made, owned by, or subject to an obligation of assignment to, the same person. See "Guidelines Setting Forth a Modified Policy Concerning the Evidence of Common Ownership, or an Obligation of Assignment to the Same Person, as Required by 35 U.S.C. 103(c)," 1241 O.G. 96 (December 26, 2000). The applicant(s) or the representative(s) of record have the best knowledge of the ownership of their application(s) and reference(s), and their statement of such is sufficient evidence because of their paramount obligation of candor and good faith to the USPTO.

The statement concerning common ownership should be clear and conspicuous (e.g., on a separate piece of paper or in a separately labeled section) in order to ensure that the examiner quickly notices the statement. Applicants may, but are not required to, submit further evidence, such as assignment records, affidavits or declarations by the common owner, or court decisions, in addition to the above-mentioned statement concerning common ownership.

For example, an attorney or agent of record receives an Office action for Application X in which all the claims are rejected under 35 U.S.C. 103(a) using Patent A in view of Patent B wherein Patent A is only available as prior art under 35 U.S.C. 102(e), (f), and/or (g). In her response to the Office action, the attorney or agent of record for Application X states, in a clear and conspicuous manner, that:

"Application X and Patent A were, at the time the invention of Application X was made, owned by Company Z." This statement alone is sufficient evidence to disqualify Patent A from being used in a rejection under 35 U.S.C. 103(a) against the claims of Application X.

Whereas the requirement for **"The statement concerning common ownership should be clear and conspicuous (e.g., on a separate piece of paper or in a separately labeled section) in order to ensure that the examiner quickly notices the statement"** is clearly not met.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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6. Claims 2-4,6,8-10,12,14-16,18-22 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted elements are: “using said embedded radio modules” as the return communications path; (claim 2,8,14, and claims 3,4,19,9,10,20,15,16,21 by dependence) “*returning* from said first device, a *unique device identifier* of said first device, to said server”, (claim 6,12,18, and claim 22 by dependence) “*returning* from said first device a unique device identifier and said public key of said first device to said server”, “*transmitting* said device certificate and a public key of a *Certificate Authority* which signed said device certificate to said first device”.

Claims 2-4,6,8-10,12,14-16,18-22 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: “wherein said protected storage is write-only storage able to perform computations involving previously-written data” (claims 2,6,8,12,14,18 and claims 3,4,19,9,10,20,15,16,21,22 by dependence), whereas the use of “write-only storage” that although it is recited in the claim as storage (protected), at the same time it is expected to be “able to perform computations”. This is clearly an inconsistency in either the art per se, or is an implementation omission.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 2-3,8-9,14-15,19-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Debry, U.S. Patent 6,314,521 B1.

8. As per claim 2; “ A method for *initializing* [see Debry, col. 6, lines 4-7] a first device distributed with an embedded radio module using a server, said server having an *embedded radio* [col. 6, lines 16-17, col. 7, lines 20-24] module, said method comprising the steps of: sending an *inquiry* [col. 6, lines 33-35, the inquiry as part of the establishment of the HTTP session (i.e., SSL mutual authentication handshaking), whereas it is inherent that the HTTP session establishment protocol is bi-directional (i.e., SSL cryptographic parameter/key setup during secure communications setup)] from said server to said first device using said embedded radio modules; *returning* [col. 6, lines 36-43], from said first device, a *unique device identifier* [col. 6, lines 19-27,40-41, col. 8, lines 17-25] of said first device, to said server; creating, at said server, a *public key, private key pair* [col. 6, lines 56-60] for said first device; creating, at said server, a *device certificate* [col. 6, lines 12-18, col. 9, lines 15-23] for said first device, said device certificate having a unique hardware identifier associated with said first device and a public key associated with said first device; *transmitting* [col. 6, lines 52-64] said private key, and said *device certificate* [col. 7, lines 25-26], and a public key of a *Certificate Authority* [col. 6, lines 10-11, col. 8, lines 26-28, 38-44] which signed said device certificate, to said first device; and, storing said private key in *non-removable protected storage* [col. 6, lines 28-32, 66-67] at said first device; wherein said protected storage is write-only storage able to perform computations involving previously-written data [col. 6, lines 66-67].” ;

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And further as per claim 8; "A system [This claim is the apparatus of the method claim 2, and is rejected for the same reasons provided for the claim 2 rejection above] for initializing a first device distributed with an embedded radio module using a server, said server having an embedded radio module, said system comprising: a communications mechanism for sending an inquiry from said server to said first device using said embedded radio modules, and returning, from said first device, a unique device identifier of said first device, to said server; a processor at said server for creating a public key, private key pair for said first device; a device certificate, created at said server, for said first device, said device certificate having a unique hardware identifier associated with said first device and a public key associated with said first device; wherein said communications mechanism transmits said private key, and said device certificate, and a public key of a Certificate Authority which signed said device certificate, to said first device; and, said processor stores said private key in non-removable protected storage at said first device; wherein said protected storage is write-only storage able to perform computations involving previously-written data.";

And further as per claim 14; "A computer program product embodied in a machine readable medium [This claim is the software embodiment of the method claim 1, and is rejected for the same reasons provided for the claim 1 rejection above] for initializing a first device distributed with an embedded radio module using a server, said server having an embedded radio module, wherein said computer program product comprises the programming steps of: sending an inquiry from said server to said first device using said embedded radio modules; returning, from said first device, a unique device identifier of said first device, to said server; creating, at said server, a public key, private key pair for said first device; creating, at said server, a device

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certificate for said first device, said device certificate having a unique hardware identifier associated with said first device and a public key associated with said first device; transmitting said private key, and said device certificate, and a public key of a Certificate Authority which signed said device certificate, to said first device; and, storing said private key in non-removable protected storage at said first device; wherein said protected storage is write-only storage able to perform computations involving previously-written data. ”;

9. Claim 3 *additionally recites* the limitations that “... wherein a copy of said certificate is stored in an *enterprise database*.”. The teachings of Debry (col. 6, lines 24-26, 61-64) suggest such limitations (i.e., IBM Corp. wide database is clearly an enterprise database);

And further, claim 9 *additionally recites* the limitations that “... wherein a copy of said certificate is stored in an enterprise database. ” [This claim is the apparatus of the method claim 3, and is rejected for the same reasons provided for the claim 3 rejection above];

And further, claim 15 *additionally recites* the limitations that “... wherein a copy of said certificate is stored in an enterprise database. ” [This claim is the software embodiment of the method claim 3, and is rejected for the same reasons provided for the claim 3 rejection above].

10. Claim 19 *additionally recites* the limitations that “... wherein communications between said first device and said server is performed in a wireless manner.”; The teachings of Debry (col. 6, lines 16-17, and col. 7, lines 20-24, whereas it is inherent that the cell phone (and inherent accompanying base station component) clearly is a wireless communications technology in a client server architecture environment) suggest such limitations;

And further, claim 20 *additionally recites* the limitations that “... wherein communications between said first device and said server is performed in a wireless manner.”

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[This claim is the apparatus of the method claim 19, and is rejected for the same reasons provided for the claim 19 rejection above];

And further, claim 21 *additionally recites* the limitations that "... wherein communications between said first device and said server is performed in a wireless manner."

[This claim is the software embodiment of the method claim 19, and is rejected for the same reasons provided for the claim 19 rejection above].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 4,10,16 rejected under 35 U.S.C. 103(a) as being unpatentable over Debry, U.S. Patent 6,314,521 B1 as applied to claims 2,8,12 respectively, above, and further in view of Netscape ("Netscape") Communications Corp., "Netscape Certificate Server FAQ", 1997.

As per claim 4 ; "A method as claimed in claim 2 wherein a copy of said certificate is stored in an LDAP directory."

Debry teaches of the certificate based initialization / authentication of a first device associated with a network server / certificate authority in an enterprise (i.e., IBM) environment.

Debry fails to teach of the certificate storage being in an LDAP directory.

Netscape teaches of using the Netscape Certificate Server v1.0 for managing (clearly including storage) PKI based digital certificates in an enterprise-wide security infrastructure

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scaled to the internet, using open standards including LDAP directory support (2nd section, 1st and 3rd bullets).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to have been motivated to combine the Debry certificate based initialization / authentication of a first device associated with a network server / certificate authority in an enterprise environment invention with the Netscape Certificate Server v1.0 for managing PKI based digital certificates in an enterprise-wide security infrastructure, using LDAP directory support to allow for the Open Standards support for PKI based security (i.e., SSL, X.509 directory services, etc.) that is required in such large networks such as the internet (Netscape, entire document).

And further, claim 10 *additionally recites* the limitations that “A system as claimed in claim 8 wherein a copy of said certificate is stored in an LDAP directory.” [This claim is the apparatus of the method claim 4, and is rejected for the same reasons provided for the claim 4 rejection above];

And further, claim 16 *additionally recites* the limitations that “The computer program product as claimed in claim 14 wherein a copy of said certificate is stored in an LDAP directory.” [This claim is the software embodiment of the method claim 4, and is rejected for the same reasons provided for the claim 4 rejection above];

Allowable Subject Matter

12. As per claim 6 ; “A method for *initializing* [see Debry, col. 6, lines 4-7] a first device distributed with an *embedded radio* [col. 6, lines 16-17, col. 7, lines 20-24] module using a

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server, said server having an embedded radio module, said method comprising the steps of: sending an *inquiry* [col. 6, lines 33-35, the inquiry as part of the establishment of the HTTP session (i.e., SSL mutual authentication handshaking)] from said server to said first device using said embedded radio modules; *creating* at said first device, a public key, private key pair for said first device; *storing*, at said first device, said private key in non-removable protected storage; *returning* from said first device, a unique device identifier and said public key of said first device, to said server; creating, at said server, a *device certificate* for said first device, said device certificate having said device identifier and said public key; and *transmitting* said device certificate and a public key of a *Certificate Authority* which signed said device certificate to said first device; wherein said protected storage is write-only storage able to perform computations involving previously-written data.”;

And further as per claim 12 ; “An initialization system [This claim is the apparatus of the method claim 6, and is allowed for the same reasons provided for claim 6 above], said system comprising: a first device, said first device having an embedded radio module; a server, said server having an embedded radio module; a communications mechanism, said communications mechanism sending an inquiry from said server to said first device using said embedded radio modules; wherein said first device creates a public key, private key pair for said first device, stores said private key in non-removable protected storage, and returns a unique device identifier and said public key of said first device, to said server; said server creates a device certificate for said first device, said device certificate having said device identifier and said public key; and transmits said device certificate and a public key of a Certificate Authority which signed said

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device certificate to said first device; wherein said protected storage is write-only storage able to perform computations involving previously-written data.”;

And further as per claim 18 ; “A computer program product embodied in a machine readable medium [This claim is the software embodiment of the method claim 6, and is allowed for the same reasons provided for claim 6 above] for initializing a first device distributed with an embedded radio module using a server, said server having an embedded radio module, wherein said computer program product comprises the programming steps of: sending an inquiry from said server to said first device using said embedded radio modules; creating, at said first device, a public key, private key pair for said first device; storing, at said first device, said private key in non-removable protected storage; returning, from said first device, a unique device identifier and said public key of said first device, to said server; creating, at said server, a device certificate for said first device, said device certificate having said device identifier and said public key; and transmitting said device certificate and a public key of a Certificate Authority which signed said device certificate to said first device; wherein said protected storage is write-only storage able to perform computations involving previously-written data.”;

And further as per claim 22 ***additionally reciting*** the limitations that “... wherein communications between said first device and said server is performed in a wireless manner.”;

13. Claims 6,12,18,22 are allowed over prior art insofar as the “*creating* at said first device [i.e., client side], a public key, private key pair for said first device”, versus the creation of the key pair at the “server” side is not taught or suggested in the prior art of record (nor in combination with additional art thereof).

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Conclusion

14. Any inquiry concerning this communication or earlier communications from examiner should be directed to Ronald Baum, whose telephone number is (703) 305-4276. The examiner can normally be reached Monday through Friday from 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh, can be reached at (703) 305-9648. The Fax number for the organization where this application is assigned is 703-872-9306.

Ronald Baum

Patent Examiner


AYAZ SHEIKH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100